

¹⁰⁹Nb

In 1994, Bernas et al. published the discovery of ¹⁰⁹Nb in “Projectile Fission at Relativistic Velocities: A Novel and Powerful Source of Neutron-Rich Isotopes Well Suited for In-Flight Isotopic Separation” 1994 ([1994Be24](#)). The isotopes were produced using projectile fission of ²³⁸U at 750 MeV/nucleon on a lead target at GSI, Germany. “Forward emitted fragments from ⁸⁰Zn up to ¹⁵⁵Ce were analyzed with the Fragment Separator (FRS) and unambiguously identified by their energy-loss and time-of-flight.” This experiment yielded 81 counts, of ¹⁰⁹Nb.

Adapted from reference ([2012Ny02](#))

[1994Be24](#) M. Bernas, S. Czajkowski, P. Armbruster, H. Geissel *et al.*, Phys. Lett. B **331**, 19 (1994).

[2012Ny02](#) A. Nystrom and M. Thoennessen, At. Data Nucl. Data Tables **98**, 95 (2012).

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